

**WHAT IS CLAIMED IS:**

1. A method for validating wireless content comprising:

performing a first web crawling process to retrieve a first set of content files from a web site, the first web crawling process including

identifying a link in a first content file of the first set, and

following the link to a second content file of the first set, the second content file including content based on the first content file;

analyzing the first set of content files for errors by emulating a first category of wireless devices; and

generating a log file including a navigation history and error information, wherein the navigation history includes one or more paths of links traversed during the first web crawling process.

2. The method of claim 1, wherein analyzing the first set of content files for errors comprises:

based on information about characteristics of the first category of wireless devices, analyzing content in the retrieved first set for errors that may occur in the use of the retrieved content at a wireless device in the first category, the retrieved content being configured for use on a wireless device in the first category.

3. The method of claim 2, wherein analyzing content comprises:

identifying a first list of language elements that are supported by the first category of wireless devices; and

performing a syntax check of the first set of content files using the first set of language elements.

4. The method of claim 3, wherein the first set of language elements define a markup language format.
5. The method of claim 2, wherein analyzing content comprises:
  - performing a semantic check of the first set of content files based on the characteristics of the first category of wireless devices.
6. The method of claim 2, wherein analyzing content comprises:
  - performing a usability score of the first set of content files based on the characteristics of the first category of wireless devices.
7. The method of claim 1, further comprising:
  - performing a second web crawling process by traversing the path of links defined by the navigation history to retrieve a second set of content files; and
  - analyzing the second set of content files for errors by emulating a second category of wireless devices.
8. The method of claim 7, wherein analyzing the second set of content files for errors comprises:
  - based on information about characteristics of the second category of wireless devices, analyzing content in the retrieved second set for errors that may occur in the use of the retrieved content at a wireless device in the second category, the retrieved content being configured for use on a wireless device in the second category.
9. The method of claim 8, wherein analyzing content comprises:
  - identifying a second list of language elements that are supported by the second category of wireless devices; and

performing a syntax check of the second set of content files using the second set of language elements.

10. The method of claim 9, wherein the second set of language elements define a second markup language format.

11. The method of claim 8, wherein analyzing content comprises:

performing a semantic check of the first set of content files based on characteristics of the second category of wireless devices.

12. The method of claim 8, wherein analyzing content comprises:

performing a usability score of the first set of content files based on characteristics of the second category of wireless devices.

13. The method of claim 1, wherein the navigation history identifies an order in which the first set of content files are retrieved.

14. The method of claim 1, further comprising:

receiving a seed URL that defines a starting point for the first web crawling process.

15. The method of claim 1, further comprising:

providing a test configuration file including user data; and  
for each retrieved content file, determining whether the content file has input data fields, and if so, entering the user data in the input data fields and sending the user data to the web site.

16. The method of claim 15, wherein providing the test configuration file comprises:

displaying a blank form on a screen of a computing device, the blank form having one or more input data fields;

receiving input from a user entering user data into the one or more input data fields; and

generating the test configuration file based on the user input.

17. The method of claim 16, wherein the user data includes one or more variable values that are used to create a dynamic URL.

18. The method of claim 1, wherein the link includes one or more variable values based on the first content file.

19. A computer program product, tangibly embodied in an information carrier, for validating wireless content, the computer program product being operable to cause data processing apparatus to:

perform a first web crawling process to retrieve a first set of content files from a web site, the first web crawling process including

identifying a link in a first content file of the first set, and

following the link to a second content file of the first set, the second content file including content based on the first content file;

analyze the first set of content files for errors by emulating a first category of wireless devices; and

generate a log file including a navigation history and error information, wherein the navigation history includes one or more paths of links traversed during the first web crawling process.

20. The product of claim 19, wherein instructions to analyze the first set of content files for errors comprise instructions to:

based on information about characteristics of the first category of wireless

devices, analyze content in the retrieved first set for errors that may occur in the use of the retrieved content at a wireless device in the first category, the retrieved content being configured for use on a wireless device in the first category.

21. The product of claim 19, further comprising instructions to:

perform a second web crawling process by traversing the path of links defined by the navigation history to retrieve a second set of content files; and

analyze the second set of content files for errors by emulating a second category of wireless devices.

22. The product of claim 21, wherein instructions to analyze the second set of content files for errors comprise instructions to:

based on information about characteristics of the second category of wireless devices, analyze content in the retrieved second set for errors that may occur in the use of the retrieved content at a wireless device in the second category, the retrieved content being configured for use on a wireless device in the second category.

23. The product of claim 19, further comprising instructions to:

provide a test configuration file including user data; and

for each retrieved content file, determine whether the content file has input data fields, and if so, enter the user data in the input data fields and send the user data to the web site.

24. The product of claim 23, wherein instructions to provide the test configuration file comprise instructions to:

display a blank form on a screen of a computing device, the blank form having one or more input data fields;

receive input from a user entering user data into the one or more input data fields;  
and

generate the test configuration file based on the user input.

25. A system for validating wireless content, the system comprising:

a communications system;

a first computing device including content files; and

a second computing device having a content validator program, the content validator program configured to:

perform a first web crawling process to retrieve, through the communications system, a first set of content files from the first computing device, the first web crawling process including identifying a link in a first content file of the first set, and following the link to a second content file of the first set, the second content file including content based on the first content file;

analyze the first set of content files for errors by emulating a first category of wireless devices; and

generate a log file including a navigation history and error information, wherein the navigation history includes one or more paths of links traversed during the first web crawling process.

26. The system of claim 25, wherein the content validator program is further configured to:

perform a second web crawling process by traversing the path of links defined by the navigation history to retrieve a second set of content files; and

analyze the second set of content files for errors by emulating a second category of wireless devices.

27. The system of claim 25, wherein the content validator program is further configured to:

provide a test configuration file including user data; and  
for each retrieved content file, determine whether the content file has input data fields, and if so, enter the user data in the input data fields and send the user data to the first computing device.

28. The system of claim 25, wherein the content validator program is further configured to:

display a blank form on a screen of a third computing device, the blank form having one or more input data fields;  
receive input from a user entering user data into the one or more input data fields;  
and  
generate a test configuration file based on the user input.

29. An apparatus comprising:

a means for performing a first web crawling process to retrieve a first set of content files, the first web crawling process including  
identifying a link in a first content file of the first set, and  
following the link to a second content file of the first set, the second content file including content based on the first content file;  
a means for analyzing the first set of content files for errors by emulating a first category of wireless devices; and

a means for generating a log file including a navigation history and error information, wherein the navigation history includes one or more paths of links traversed during the first web crawling process.

30. The apparatus of claim 29, further comprising:

a means for performing a second web crawling process by traversing the path of links defined by the navigation history to retrieve a second set of content files; and

a means for analyzing the second set of content files for errors by emulating a second category of wireless devices.

31. The apparatus of claim 29, further comprising:

a means for providing a test configuration file including user data; and

for each retrieved content file, a means for determining whether the content file has input data fields, and if so, entering the user data in the input data fields and sending the user data to the first computing device.

32. The apparatus of claim 29, further comprising:

a means for displaying a blank form on a screen of a computing device, the blank form having one or more input data fields;

a means for receiving input from a user entering user data into the one or more input data fields; and

a means for generating a test configuration file based on the user input.